Abstract

An apparatus (1) on a [[the]] sending side sends a first signal (S1) containing encrypted data that was encrypted using conversion constants (Y, Zy'), and a conversion constant (X) to an apparatus (1) on the receiving side; the apparatus (1) on the sending side sends a second signal (S2) containing encrypted data that was encrypted using conversion constants (X, Zy'), and a conversion constant (Y) and pattern-conversion constants (Zy) that correspond to conversion constant (Zy') to a relay apparatus (2).; the The relay apparatus (2) transfers a second' signal (S2') in which a pattern-conversion constant (Zy) in the second signal (S2) has been converted to a conversion constant (Zy') to the apparatus (1) on the receiving side.; the The apparatus (1) on the receiving side reads the encrypted data and conversion constants (X, Y, Zy') from the first signal (S1) and second' signal (S2'), then decodes and authenticates the encrypted data.